

A Valve Photocell of Cadmium Telluride  
(A Preliminary Report)

57-27-7-26/40

cell amounted to more than 500 mV and the short-circuit amperage 2 mA/qcm. The loaded part of the volt-ampere characteristic in this connection approached the rectangular form. The efficiency of such a photoelectric cell has the order of magnitude of 2 %. This value, however, is by far no boundary value for photocells of CdTe. The maximum of the spectral sensitivity of the obtained photocells lay within the boundaries of 0.75 to 0.78  $\mu$  and the long-wave boundary of photosensitivity was 0.9  $\mu$ . The photoelectric cells of cadmium-telluride possess a high sensitivity as compared to X-rays.

ASSOCIATION: Institute for Semiconductors AS USSR, Leningrad  
(Institut poluprovodnikov AN SSSR, Leningrad)

SUBMITTED: January 30, 1957

AVAILABLE: Library of Congress

Card 2/2      1. Photoelectric cells-Development    2. Photoelectric cells-Design  
                  3. Cadmium-telluride-Applications

BOROVIKOVA, R.P. [translator]; DUBROVSKIY, G.B.[translator]; OKHOTIN, A.S.  
[translator]; PEDYASH, E.M. [translator]; MASLAKOVETS, Yu.P., prof.,  
doktor fiz.-mat.nauk, red.; SUBASHIYEV, V.K., kand.fiz.-mat.nauk,  
red.; VISKOVA, M.V., red.; SMIRNOVA, N.I., tekhn.red.

[Semiconductor transformers of radiant energy] Poluprovodnikovye  
preobrazovateli energii izlucheni; sbornik statei. Moskva,  
Izd-vo inostr.lit-ry, 1959. 407 p. (MIRA 12:4)  
(Semiconductors) (Photoelectricity)

MASLAKOVETS, YU.P.

31251

(D)

S/181/60/002/01/01/035  
B008/B011

9.4160

AUTHORS: Vodakov, Yu. A., Lomakina, G. A., Naumov, G. P.,  
Maslakovets, Yu. P.

TITLE: A Photocell Made of Cadmium Telluride With a p-n Junction

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 3 - 7

TEXT: The authors report on the properties of a new cadmium-telluride photocell. Cadmium-telluride crystals with a cubic modification were used for its preparation. The light characteristics of the CdTe photocells are similar to those of Ge and Si photocells, which have a p-n junction. Fig. 1 shows the characteristics of the CdTe cell for an irradiation of 4, 30, 300 and 3,000 lux. Current-voltage characteristics of the CdTe photocell are shown in Fig. 2 for room temperature, in Fig. 3 for +50°C, and in Fig. 4 for +101°C. According to their character, they are similar to those of silicon photocells. Fig. 5 shows the temperature dependence of the electromotive force, of short-circuit current, and of the maximum capacitance yielded to the outer circuit under continuous exposure. Fig. 6 shows the characteristics of another

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With a p-n Junction

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photocell at a relatively short exposure. Fig. 7 shows the temperature dependence of the short-circuit current, of the electromotive force and of the maximum capacitance yielded to the outer circuit. Fig. 8 shows, in relative units, the spectral sensitivity of the CdTe photocell referred to an equal amount of quanta and to an equal incident radiation energy. Cadmium-telluride photocells with p-n junction are very sensitive to ultraviolet and X rays. CdTe photocells have at present an efficiency of 4% and can be utilized for solar batteries. The lower efficiency is compensated by their simpler and less expensive preparation. Due to their spectral sensitivity and a high duty factor of the characteristics, they might be used to solve some technical problems. The authors thank T. L. Koval'chik for his discussion of experimental results and G. B. Dubrovskiy for his examination of the spectral sensitivity of the photocells. B. K. Subashev is also mentioned. There are 8 figures and 6 references, 4 of which are Soviet.

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A Photocell Made of Cadmium Telluride  
With a p-n Junction

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ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad  
(Institute of Semiconductors, AS USSR, Leningrad)

SUBMITTED: April 9, 1959

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MASLAKOVETS, Yu. I.

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B008/B011

AUTHORS: Vodakov, Yu. A., Lomakina, G. A., Naumov, G. P.,  
Maslakovets, Yu. P.

TITLE: Properties of p-n Junctions in Cadmium Telluride Photocells,

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 15-22

TEXT: The current-voltage characteristics of cadmium telluride photocells were thoroughly studied by means of a circuit (Fig. 1) consisting of the current source, a diode, a current generator (which simulates the photocurrent), a resistor connected in series, and a shunt (Figs. 1 to 10). The technique used for the preparation of cadmium telluride photocells leads to the formation of a p-n junction. The depth of its position can be regulated. In the resulting p-type layer the minority carriers have a very short lifetime, and the electrical conductivity of the layer is poor. For this reason it plays the part of a filter with respect to the incident radiation, and is the main cause responsible for the high resistances. The authors obtained photocells with p-n junctions, whose current-voltage

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Properties of p-n Junctions in Cadmium Telluride Photocells

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characteristics at room temperature complied quantitatively with Shockley's theory which considers a recombination in the p-n junction. Near the surface, such characteristics are very difficult to obtain. Their form is in most cases distorted by a "hump". A tunnel effect is assumed to occur in CdTe photocells on narrow points of the p-n junotions. By applying the suitable technique it is possible to obtain a p-n junction with a relatively high efficiency even near the surface, both on a low and a high exposure level. An efficiency of 4% was attained with the best photocells in the sunlight, although with a band width of 1.4 ev, the conversion coefficient of solar radiation into electric energy should be considerably higher. This low efficiency is for a large part explained by the presence of a semitransparent metal electrode through which only about 50% of the incident light passes. The second factor affecting the efficiency of CdTe photocells, is the short lifetime both in p-type and n-type CdTe. The efficiency could be only increased by prolonging the lifetime of the minority carriers in p-type and n-type cadmium telluride. An increase of up to 7% shuld be expected in this case. This, however, would entail, due to a complicated technique, a considerable increase in the cost of the photocell. When preparing photocells with an efficiency ✓

Properties of p-n Junctions in Cadmium  
Telluride Photocells

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of about 4% it is, however, possible to restrict oneself to relatively simple methods of preparation. The authors thank B. Ya. Moyzhes for discussing the results. There are 10 figures and 7 references, 2 of which are Soviet.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AS USSR, Leningrad)

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MASLAKOVETS, Yu. P.

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24.7700

AUTHORS: Vodakov, Yu. A., Lomakina, G. A., Naumov, G. P.,  
Maslakovets, Yu. P.

TITLE: Investigation of the Surface Layers on Cadmium Telluride  
Crystals

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 55-61

TEXT: The authors describe experiments made for the investigation of the surface layers of cadmium telluride (Figs. 1-6). The diffusion coefficient is calculated in an appendix. The mechanism of the formation of p-type surface layers was investigated. The respective conductivity in CdTe is due to an admixture of elements of groups I and V or by the presence of Cd vacancies. The most likely is the formation of Cd vacancies or the disappearance of the donor impurity from the surface, which, in the case of p-type CdTe partly compensates the acceptor impurity. Two mechanisms may be assumed which, in the air and at a temperature of 200°C, lead to the formation of Cd vacancies: The one is the diffusion of oxygen into the surface layer and, hence, formation of

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Investigation of the Surface Layers on  
Cadmium Telluride Crystals

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metalloid excess therein. The second mechanism is the disappearance of cadmium from the surface layer; also this process can be strongly influenced by the presence of oxygen. Compared to the glowing in the air, pre-heating in deoxidized argon or hydrogen has a somewhat inhibiting effect on the diffusion process, but all the same, p-type conductive layers are formed. Also in this case, the influence of oxygen is not excluded. In the authors' opinion, the stimulating main factor is atmospheric oxygen. It was not clarified, however, which type of influence predominates here. On longer standing in the air or on pre-heating up to a correspondingly high temperature, the properties of CdTe are irreversibly changed only from the surface. Important changes in volume properties start occurring when the processes beginning from the surface penetrate the material to a considerable depth. The same phenomena can be observed in n-type CdTe crystals with low resistivity. Strikingly high is the diffusion coefficient of acceptor impurity (appendix), which raises the surface layer conductivity. Its height can be explained by the great number of vacancies and mechanical tensions in the crystal lattice, occurring in consequence of the treatment and etching of the surface. The authors thank B. Ya. Moyzhes. 

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Investigation of the Surface Layers on  
Cadmium Telluride Crystals

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and T. L. Koval'chik for assistance given. There are 6 figures and  
3 references: 1 Soviet.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute  
of Semiconductors, AS USSR, Leningrad)

SUBMITTED: April 9, 1959

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L 42933-66 EWT(m)/EWP(t)/ETI JD/NW/JG

ACC NR: AP6013309

SOURCE CODE: UR/0413/66/000/008/0102/0102

44  
B

INVENTOR: Stepanov, B. N.; Maslan, L. B.; Mentsov, B. A.

ORG: none

TITLE: Waveguide system for working melts. Class 42, No. 180871

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 102.

TOPIC TAGS: waveguide, converter, laboratory instrument, ~~and ultrasonic converter~~

ABSTRACT: An Author Certificate has been issued describing a waveguide system for treating melts. It contains an ultrasonic converter, an adaptor, and a tool. To make use of the entire tool, extension waveguides of different lengths are installed between the adaptor and tool to compensate for the wear of the titanium tool (see Fig. 1). Orig. art. has: 1 figure. [Translation] [NT]

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UDC: 621.9.048.6.004.6

L 42933-66

ACC NR: AP6013309

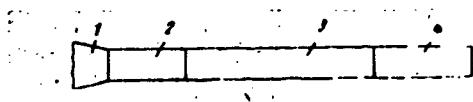


Fig. 1. Waveguide system for working  
melts.  
1—converter; 2—adaptor;  
3—extension waveguide;  
4—tool.

SUB CODE: 11, <sup>09/</sup> ~~EX~~ SUBM DATE: 06Jun64/

L 04817-67

ACC NR: AP6025816

(A,N)

SOURCE CODE: UR/0128/66/000/005/0037/0038

AUTHOR: Levi, L. I. (Doctor of technical sciences); Knizhnik, G. S. (Engineer); Maslan,  
L. M. (Engineer)

ORG: none

TITLE: Effect of ultrasonic vibrations on the structure and properties of the aluminum alloy AL4

SOURCE: Liteynoye proizvodstvo, no. 5, 1966, 37-38

TOPIC TAGS: degasifier, aluminum alloy, ultrasonic effect, molten metal / AL4 aluminum alloy, UZD-200 M degasifier, EM-3 electron microscope

ABSTRACT: To determine the effect of ultrasonic treatment, one part of a melt of AL4 aluminum alloy (9.44% Si, 0.24% Mg, 0.28% Fe, 0.36% Mn, 0.049% Ti, with Al as the reminder) was refined with MnCl<sub>2</sub>, and the other part treated with ultrasound by means of an UZD-200M degasifier at 740°C (twice for 6 min each time, with vibration amplitude of 16-18 μ and frequency of 18.5 kilo-cps, with an interval of 5 min). The melt was then checked for gas content by means of the vacuum test (Stepanov, B. N., Maslan, L. B. Trudy NITI, vyp. 8, ch. 1, 1964) and solidified specimens were subjected to mechanical tests and metallographic exami-

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ACC NR: AP6025816

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nation of the fine structure with the aid of an EM-3 electron microscope. For comparison, the portion treated with  $MnCl_2$  was subjected to similar tests. Findings: microphotographs of the  $MnCl_2$ -treated specimen reveal distinct inclusions. of Si in the Si-Al eutectic.<sup>2</sup> Ultrasound-treated specimens display finer-sized and somewhat spheroidized Si inclusions; this undoubtedly affects the mechanical properties of the alloy. The macrostructure of the ultrasound-treated specimens is also much more disperse than that of the untreated or  $MnCl_2$  - treated specimens. An analysis of replicas also confirms the dispersing effect of the ultrasound on the structure of the alloy. Ultrasonic treatment contributes to the appearance of the surface of particles of fresh melt-filled fissures, cracks and cavernosities, which improves their cohesion with the base metal. The "sonic wind" forming during ultrasonic treatment of the melt, as well as the mixing of the melt in the furnache due heat fluxes, contribute to a more uniform distribution of the dispersed and wetted particles throughout the metal. In the process of the crystallization of the melt these particles serve as additional crystallization nuclei which, in their turn, contribute to a more finegrained structure of the alloy. This may account for the marked increase in mechanical properties of the alloy ( $\sigma_B$  increases from 27.0 to  $29.5 \text{ kg/mm}^2$  and  $\delta$  increases from 3.0 to 8.6%). Thus, the effect of ultrasonic vibrations on the molten alloy may be regarded as a complex process involving the dispersion of inclusions and their uniform distribution throughout the metal, as well as the wetting of dispersed particles in the ultrasonic field and the formation of additional crystallization nuclei. All these factors

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indisputably contribute to an improvement in the structure of the metal and in the quality of the finished ingots or castings. Orig. art. has: 2 Figures

SUB CODE: //, 20 / SUBM DATE: none / ORIG REF : 003

3/3 ab

MASLANKA, A.

A. MASLANKA, "The influence of an increase in driving rate of a blast furance on the reduction of iron and coke rate. (From: A. P. Luban and V. G. Manchinskii. Problemy Metallurgii. Published by the Academy of Sciences of the USSR, Moscow 1953, pp. 217-231 and A.P. Luban, Analiz Jivlenii Domennogo Processa, Moscow 1955, pp. 226-240)

No. 13, December 1955

HUTNIK

*MASEK A*  
**POLON**

10476<sup>e</sup>. Device for Measuring the Dynamic Pressure in Blast Furnace Tuyeres. Urządzenie do pomiaru ciśnienia dynamicznego w wytrąbach wielkiego pieca. (Polish.) A. Maledzka. Państwowe Biuro Ochrony Inwentarza i Przedsiębiorstwo Ministerstwa Hutańictwa, v. 8, no. 3, 1955, p. 10-12.

Design; operation; measurement of temperature and blast flow. Diagrams, table.

*M 82*

MASLANKA, A.

MASLANKA, A. INFLUENCE OF THE INTENSIFIED BLASTFURNACE PROCESS ON THE SPEED OF  
THE REDUCTION OF IRON AND THE CONSUMPTION OF COAL. P. 456.

VOL. 22, No. 12, Dec. 1955

HUTNIK

TECHNOLOGY

Katowice, Poland

So: East Europeon Accession, Vol. 5, No. 5, May 1956

MASLANKA, A,

Investigation of the influence of moistening the blast of the results of the work of blast furnaces. Biuletyn. p. 4.

(HUTNIK. Vol. 24, No. 1, Jan. 1957, Katowice, Poland.)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957. Uncl.

POL/39-59-5-7/14

AUTHOR: Maslanka, A., and Kowalewski, M

TITLE: Metallurgical News - Desulfurization of Pig Iron  
Outside the Blast Furnace with Solid Desulfurizing  
Agents

PERIODICAL: Hutnik, 1959, Nr 5, pp 202-212 (Poland)

ABSTRACT: The following solids are used in the desulfurization of pig iron: CaO, CaCO<sub>3</sub>, CaC<sub>2</sub>, CaCN<sub>2</sub>. These substances have the advantage that they react with liquid iron and the product of the reaction also appears in solid state. If well powdered and mixed with the pig iron, these substances also react more rapidly than liquid slag. They also have the following advantages: unlike liquid slag, they do not corrode the heat-resistant of furnaces and they can easily be separated from the pig iron. Again, their reactions do not produce noxious fumes as is the case during desulfurization with alkaline compounds. The author then discusses in turn and in detail the four methods of

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Metallurgical News - Desulfurization of Pig Iron outside the Blast Furnace with Solid Desulfurizing Agents

desulfurizing pig iron. In the experiments (for purposes of comparison) the pig iron used contained the same amount of sulfur in each case and also the same amount of desulfurizing agent was used in each case. It was found that the desulfurizing potential of the four compounds depended more on the amount of sulfur present in the pig iron than on the amount of desulfurizing agent used. (See table 10). From the data obtained it is seen that where only small amounts of sulfur are present (0.03%), the best desulfurizing agent is  $\text{CaCO}_3$  (despite the fact that carbon dioxide, an oxidizing agent, is given off during this reaction) followed by  $\text{CaO}$ ,  $\text{CaC}_2$  and  $\text{CaCN}_2$ . But with a larger amount of sulfur in the pig iron (0.06%) these roles are reversed, the best desulfurizer being  $\text{CaCO}_3$ , followed by  $\text{CaC}_2$ ,  $\text{CaCN}_2$  and  $\text{CaO}$ . One of the problems

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studied during this process was the effect of the amount and type of desulfurizing agent used on loss of temperature of the pig iron during desulfurization. Table 11 gives the results of these tests and shows that  $\text{CaCO}_3$  followed by  $\text{CaCN}_2$  cause the greatest losses of temperature. The author stresses that in considering methods of desulfurization with solids and their possible application in the Polish industry, one must keep in mind also such factors as the cost of installing the necessary equipment and the economic feasibility of the project. Desulfurization by the Kalling process (Swedish) i.e. with  $\text{CaO}$ , makes it possible to obtain metals with minimum sulfur content. However, the revolving vats needed in this process and the auxiliary equipment involved would preclude its adoption in Poland, firstly because of the costs involved and secondly because the Polish overcrowded plants

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Metallurgical News - Desulfurization of Pig Iron Outside the Blast Furnace with Solid Desulfurizing Agents

just do not have enough floor space to accomodate all the apparatus needed. However, this process may profitably be used where small quantities of pig or cast iron are to be desulfurized. Special attention must be paid to the method where the desulfurizing agent is introduced into a bath in a stream of gas. The authors discuss two such methods. In the first, the desulfurizing agent is introduced through a jet dipped into the bath from above, in the second it is introduced from below, but this process is much more costly requiring the use of special convertor-type ladles. The first of these methods is now being extensively tested at the Institute of Iron Metallurgy in Gliwice with regard to its possible future application in the Polish industry. In the method thought fittest for adoption, the desulfurizing agent,  $\text{CaC}_2$ ,

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Metallurgical News - Desulfurization of Pig Iron Outside the Blast Furnace with Solid Desulfurizing Agents

is introduced into the liquid metal bath (Figs. 7 and 8), through a graphite nozzle in a stream of pure nitrogen under a pressure of about 10.5 at. The results of a series of experiments of this type are summarised in table 6. It is seen, moreover, from this table that the graphite nozzle was dipped to a depth of about 1 meter in each case, that the speed of injection of the powder averages at 10 to 12 kh per minute with a single nozzle, that the chemical efficiency of the reaction hardly ever exceeds 10% and is certainly greater with a single than with a double jet and, finally, that the cost in dollars of removing 0.001% of sulfur from 1 ton of pig iron ranges from 2 to 20 cents, with an average cost of about 4 cents for the single nozzle method. As far as the  $\text{CaCN}_2$  agent is concerned, it may be considered impracticable since its preparation is lengthy and complicated and it causes too great a loss of temperature

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POL/39-59-5-7/14

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in the course of its reaction. There are 11 tables, 10 graphs, 4 diagrams and 17 references, 5 of which are German, 8 English, 2 Swedish and 2 French

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MASLANKA, Aleksander, mgr inż.

Influence of raw siderite in a charge on the consumption  
of coke in blast furnaces. Wiad hut 15 no.7/8:208-211  
Jl-Ag '59.

MASLANKA, Aleksander, mgr. inz.

Main trends of technological progress in the field of iron-ore agglomeration. Wiad. hut 17 no. 10:285-291. 0 '61.

MASLANKA,Aleksander,mgs.inz.; RZEBIK,Tadeusz,dr.

Freezing protection of ores during transportation. Wiad hut  
17 no.11:340-344 N '61

MASLANKA, Aleksander, mgr.inz.; ZIELINSKI, Stefan, mgr.inz.; KOWALEWSKI,  
Maciej, mgr.inz.

Determination of reductivity, temperatute and softening range  
of different iron-nickel ores in the pelletizing process. Hutnik  
P 28 no.7/8:280-284 Jl-Ag '61.

1. Instytut Metalurgii Zelaza, Gliwice.

MASLANKA, Aleksander, mgr inz.; PANKOW, Igor, inz.

New method of drying industrial furnaces. Gosp paliw 11  
Special issue no.(95):26-27 Ja '63.

1. Instytut Metalurgii Zelaza, Gliwice.

MASLANKA, Aleksander, mgr inz.; GUTKOWSKA, Eugenia, mgr inz.

Studies on the possibility of using substitute fuels in  
the process of iron ore sintering. Biul inf inst metal  
zel no.2:14-18 '64.

1. Department of Pig Iron Metallurgy and Ore Processing  
of the Institute of Iron Metallurgy, Gliwice.

MASLANKA, Paweł, Wrocław, ul. Jagiellonczyka 14/9.

~~Ancylostoma duodenale in appendico-cholecystic syndrome. Polski tygod. lek. 12 no.19:711-714 6 May 57.~~

1. z II Kliniki Chirurgicznej Akademii Medycznej we Wrocławiu:  
kierownik prof. dr Wiktor Bross.  
(HOOKWORM INFECTION, complications,  
appendico-cholecystic synd. (Pol))

BROSS, Wiktor; ROGALSKI, Eugeniusz; MASLANKA, Paweł

Treatment of chronic abscesses of the lung by local administration  
of antibiotics and hyaluronidase. Polski tygod. lek. 14 no.29:  
1341-1345 20 July 59.

1. (Z II Kliniki Chirurgicznej A. M. we Wrocławiu; kierownik: prof. dr  
Wiktor Bross)

(ANTIBIOTICS, ther.) (HYALURONIDASE, ther.)  
(LUNG DISEASES, ther.) (ABSCESSES, ther.)

ARONSKI, Antoni; MASLANKA, Paweł

On the problem of Carlens' tube. Postepy hig. med. dosw. no.2:66-67  
'60.

1. z II Kliniki Chirurgicznej Akademii Medycznej we Wrocławiu Kierownik:  
prof. dr Wiktor Bross.

(PNEUMONECTOMY anesth & analg)  
(ANESTHESIA GENERAL equip & supply)

ARONSKI, Antoni; MASLANKA, Paweł; KOCIEBA, Ryszard

Considerations regarding endovenous anesthesia. Polski przegl.  
chir. 33 no. 7/9:1060-1062 '61.

l. z II Kliniki Chirurgicznej AM we Wrocławiu Kierownik: prof.  
dr W.Bross.

(ANESTHESIA INTRAVENOUS statist)

MASLANKA, Paweł; ARONSKI, Antoni; KOLTOWSKI, Ryszard

General anesthesia in removing foreign bodies from the esophagus  
with the aid of esophagoscopy. Polski przegl. chir. 33 no.7/9:  
1066-1068 '61.

l. z II Kliniki Chirurgicznej AM we Wrocławiu Kierownik: prof. dr  
W. Bross.  
(ESOPHAGUS for bodies) (ANESTHESIA GENERAL)

CISEK, Tomasz; ARONSKI, Antoni; MASLANKA, Paweł

Treatment of thrombophlebitis of the lower extremity with panthesin and hydergine (PH-203). Pol. tyg. lek. 17 no.18:710-713 30 Ap '62.

1. Z II Kliniki Chirurgicznej AM we Wrocławiu; kierownik: prof. dr Wiktor Bross.

(THROMBOPHLEBITIS ther)  
(LEG blood supply)  
(ERGOT ALKALOIDS ther)  
(PARA-AMINOBENZOIC ACID rel cpds)

BROSS, Wiktor; WRZLEWICZ, Wladyslaw; MOSCZYNSKI, Ludwik; MASLANKA, Pawel

Our observations on the treatment of pleural hematomas. Pol. tyg.  
Iek. 17 no.31:1218-1222 30 Jl '62.

1. Z II Kliniki Chirurgicznej AM we Wroclawiu; kier.: prof. dr  
Wiktor Bross.

(PLEURA) (HEMATOMA)

BROSS, W.; KOCZOROWSKI, S.; WREZLEWICZ, W.; KANIEWSKI, T.; ROGALSKI, E.;  
KUSTRZYCKI, A.; MASLANKA, P.

Apropos of the treatment and diagnosis of bronchial adenoma.  
Pol. przegl. radiol 27 no.5:381-395 S-O '63.

1. Z II Kliniki Chirurgicznej Akademii Medycznej we Wrocławiu  
(Kierownik: prof. dr med. W. Bross); Z Kliniki Radiologicznej  
Akademii Medycznej we Wrocławiu (Kierownik: doc. dr med. Z.  
Kubrakiewicz).

BARAN, Lech; ARONSKI, Antoni; UHER, Miroslaw; MASLANKA, Pawel;  
JEDROSZ, Irena

Effect of temporary arrest of blood circulation on intrabulbar  
pressure. Klin. oczna 34 no. 3:327-332 '64.

l. Z Kliniki Ocznej (Kierownik: prof. dr med. W.J.Kapuscinski)  
i z II Kliniki Chirurgicznej AM we Wrocławiu (Kierownik: prof.  
dr med. W.Bross).

ARONSKI, Antoni; MASLANKA, Paweł; RUDKOWSKI, Zbigniew

Respiratory resuscitation in a case of ascending myelitis  
in measles. Pediat. Pol. 40 no.8:857-859 Ag '65.

1. Z Kliniki Chorob Zakaznych Wieku Dziecięcego AM we  
Wrocławiu (Kierownik: doc. dr. J. Czyżewska) i z II  
Kliniki Chirurgicznej (Kierownik: prof. dr. W. Bross).

KROLIKOWSKI, Wacław, mgr inż.; MASLANKA, Tadeusz

Glued joints of polyester glass laminates. Bud okrętowe Warszawa  
10 no.1:18-19 Ja '65.

1. Navy Shipyard, Gdynia.

P.T.A.

Chemistry & Chemical  
Technology

1983

620.191 : 600.721

Mielnik Z. Corrosion and Surface Protection of Magnesium and Magnesium Alloys.

„Korozja i ochrona przed korozją magnesu i jego stopów”. Katowice, 1980, PWT, 162, pp. 82, 26 figs.

The theory of corrosion of metals. Resistance of magnesium and magnesium alloys to corrosion. Protection of magnesium and magnesium alloys from corrosion. Instances in which magnesium and magnesium alloys are being used, on account of their resistivity to corrosion.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720017-8

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001032720017-8"

MASŁANKA-ORMANOWA, ←

Met

(2)

Metallurgical Abst.  
Vol. 21 Apr. 1954  
Electrometallurgy and  
Electrochemistry

✓ "Production of [Electrolytic] Lead-Calcium Alloys. Z. Masłanka-Ormanowa (Prace Inst. Minsel. Huta., 1953, 5, (2), 89-104).—[In Polish]. A laboratory method for the prodn. of Pb-Ca alloys, using molten  $\text{CaCl}_2\text{-KCl}$  mixture as electrolyte and molten Pb as cathode, is described. The thermodynamic basis for the electrolysis is given, and the effects of o.d., distance between the electrodes, and temp. upon the efficiency of the process were investigated. The optimum conditions are: electrolyte compn. 80%  $\text{CaCl}_2$  + 20% KCl; c.d. on the cathode and on the anode 0.4-0.6 and 0.6 amp./cm.<sup>2</sup>, resp.; temp. 700° C.; distance between the electrodes 4-7 cm. The alloys contain ~5% Ca; the current efficiency is 60%, and power consumption 13.6 kWh/kg. of Ca in the alloy.—S. K. L.

MASLANKA-ORMILOWA, Z

3 Mach  
Des

Production of bearing alloy type ECo by the electrolytic method. Z. Maslanka-Ormanowa. *Prace Inst. Materiałoznawstwa Politechniki Warszawskiej* (English summary).

Bearing alloy type ECo (Polish designation), i.e. Pb alloy contg. Ca 0.75-1.1 and Na 0.05-0.05%, could be produced by the electrolysis of salts with a liquid Pb cathode in an app. described previously by M. (C.A. 47, 1104b). Best results were obtained when the salt mixt. contained NaCl 40, KCl 30, and CaCl<sub>2</sub> 30%, or NaCl 25, CaCl<sub>2</sub> 60, KCl 5, and NaF 10%; the temp. was 700-50°, c.d. on the cathode 0.75 amp./sq. cm., current efficiency 50-60%, power 14-15 kw.-hr./kg. of Ca, and Na contained in the alloy. The content of Ca in the alloys was the highest when the salt mixt. contained CaCl<sub>2</sub> 48-50 and NaCl 50-2%; the Ca content in the alloys was lower where KCl was added, and it was the lowest when KCl and NaF were added. Activity of Na<sup>+</sup> and Ca<sup>++</sup> decreased by the above addns. The decrease was attributed to a formation of CaCl<sub>2</sub>-KCl and CaCl<sub>2</sub>-NaF which do not form ions readily. When the mixt. of salts did not contain CaCl<sub>2</sub>, alloys of Pb and Na were obtained; such alloys, however, reacted with the H<sub>2</sub>O of the air (especially when the alloys contained Na > 2%).

23 references.

P. J. Hendel

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MASLANKIEWICZ, Andrzej

ICLAND

PRASZEK, Bronislaw, doc. drs. MASLANKIEWICZ, Andrzej, mgr inż. RAJZAK, Zbigniew,  
mgr inż.

Department of Organic Chemistry, Polytechnic Silesia (Katedra Chemiczna  
Organicznej Politechniki Śląskiej), Gliwice - (for all).

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"*N*-(diphenyl)-methylbenzenes - the derivatives for identification of  
aliphatic and aromatic nitriles."

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SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3,  
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MASLANKIEWICZ, K.

5th National Conference of the Polish Geographic Society. p. 271.  
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SOURCE: East European Accession List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956

MASIAŃKIEWICZ, F.

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Eugeniusz Romer as a bibliographer. p. 195.

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Uncl.

MASLANKIEWICZ, Kazimierz

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1. Uniwersytet Wrocławski.

(Salt mines and mining)

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432-434 8\*63

MASLANKIEWICZ, Kazimierz, prof.

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the Krakow region. Warsaw, 1965.

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no.1;57-72 '65.

1. School of Mining and Metallurgy, Krakow. Submitted August  
1964.

MASLANKOWSKA, Liliana

Development and control of rush (*Juncus effusus*) under the conditions  
of Western Pomeranian Province. Prace przyrod roln Szczecin 11  
no.2:1-35 '62.

COUNTRY : Czechoslovakia H-34  
CATEGORY :  
ABS. JOUR. : RZKhim., No. 21 1959, No. 77112  
AUTHOR : Heidler, K. and Maslanova, Z.  
INST. : Not given  
TITLE : A Faster Colorimetric Method for the Determination  
of the Fat Content in Scoured Wool  
ORIG. PUB. : Textil (CSR), 13, No 8, 301-303 (1958)  
ABSTRACT : 2 gms of dry wool are treated for 4 min with 50 ml  
of a solution of the dye Ceresvioletti (I) BRN  
(0.2 gm I in 1,000 ml of dil (1 : 1) aqueous  
alcoholic solution). The wool is pressed out,  
centrifuged, immersed in 50 ml petroleum ether,  
and rinsed well. 5 ml of 30% HCOH are added for  
the precipitation of proteins and the clarified  
solution is analyzed colorimetrically. The time  
required for a determination is about 6 min. The  
results are in complete agreement with the data

MASLAR, P.; JUROVCIK, M.

Hemoglobin. III. The question of resemblance in the structure of protein components of cat and rat homoglobin. p. 58

CHEMICKE ZVESTI. (Slovenska akademia cied a Spolok chemikov na Slovencu Bratislava, Czechoslovakia, Vol. 13, no. 1 1959.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, No. 7, July 1959  
Uncl.

L 24339-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GS  
ACCESSION NR: AT6005902 SOURCE CODE: UR/0000/65/000/000/0131/0136

AUTHOR: Maclarov, I.

ORG: None

TITLE: A two-position functional-frequency control 14

SOURCE: International Federation of Automatic Control, International Congress,  
2d, Basel, 1963. Tekhnicheskiye sredstva avtomatiki (Technical means of automa-  
tion); trudy kongressa. Moscow, Izd-vo Nauka, 1965, 131-136

TOPIC TAGS: automatic control system, automatic control technology

ABSTRACT: This work presents the results of investigations into the improvement  
of the quality of a two-position control of slow monotonically variable processes,  
by means of varying the frequency of the actuating pulses. The studies are  
directed mainly to the reduction of the oscillations of the controlled quantity.  
A device operating on the principle of the functional-frequency method is realized.  
The device was tested in the control of the concentration of chemical solutions  
and of temperature. For comparison the author presents diagrams showing the varia-  
tions of the temperature of the controlled plant obtained by an electronic  
potentiometer, with control executed by the conventional two-position method, and

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ACCESSION NR: AT6005902

by means of the two-position functional-frequency control. The high performance characteristics of the device proposed are apparent. The application of such a device is particularly effective in the control of plants the stabilization of which is difficult by introducing negative feedback along the first or the second derivatives of the controlled quantity. Orig. art. has: 5 figures and 11 formulas.

SUB CODE: 13 / STEM DATE: 23Jun65 / ORIG REV: 001

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720017-8

Card 2/2 88

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720017-8"

IULZARI, Iliia, inzh.; ANGELOV, Angel, inzh.; MASLAROV, Ivan, inzh.

International Exhibition on Industrial Electronics. Tekhnika  
Bulg 13 no.1:29-32 '64.

1. Chlen na Redaktsionnata kolegiia, "Tekhnika".

PAPAZOV, S.P. (Sofiya); MASLAROV, I.A. (Sofiya)

Analysis of the sensitivity of an electric network containing  
photoresistors. Avtom.i telem. 24 no.3:393-397 Mr '63.  
(MIRA 16:4)  
(Electric networks) (Photoelectric cells)

MARINOV, IUI, P.; MASLAROV, Iv. A.

Upturning of triggers with cathode coupling determined by  
linear and nonlinear dividers in a positive feedback circuit.  
Godishnik mash elek 12 no. 2:75-84 '62 [publ. '63].

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Electronic device for automatic control of the concentration  
of liquids. Radio i televizija 12 no. 12:383 '63.

MASIAKOV, Ivan, A., inzh.

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MASLARSKA, Raina, inzh., nauch. sutr.

Graphic method for determining optimum revolutions of looms.  
Tekstilna prom 13 no.6:12-14 '64.

I. Scientific Research Institute of the Textile Industry,  
Sofia.

SIMKUNAS, V.; MASLAUSKIENE, M.; ZAIKAUSKAS, M., red.; ZILINSKIENE, V., red.; KVIRILYS, V., kand. med. nauk, red.; MOTIEJUNAS, L., kand. med. nauk, red.; NENISKIS, J., kand. med. nauk, red.; STECOVSKIS, A.L., tekhn. red.

[Lithuanian medical bibliography] Lietuviskoji medicinine bibliograija. Vilnius, Valstybine moksline medicinos biblioteka. Vol.2. 1958-1960. 543 p. (MIRA 17:3)

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Fibrillation cardiopathies in oligo-sympatomatic hyperthyroidism.  
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1. Glavnnyy inzhener bumazhnoy fabriki "Kommunar".  
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(Karelia—Granite) (Kola Peninsula—Granite)

YELISEYEV, N.A.; KRATTS, K.O.; MASLENIKOV, V.A.; SHURKIN, K.A.; SOLOV'YEV, S.P.

Aleksandr Alekseevich Polkanov, 1888-1963; obituary.  
Zap. Vses. min. ob-va 92 no.3:381-383 '63. (MIRA 17:9)

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MASLENIKOV, V.A.

Some physicochemical and ecological conditions governing the  
formation of granite m. gma. Trudy lab. geol. dokem. no.19:  
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MASLENIKOVA, Ye.M.; KOSENKO, S.A.

Excretion of riboflavin in children from 3 to 7 years of age.  
(MIRA 17:5)  
Vop. pit. 21 no.5:31-36 S-0 '62.

1. Iz laboratorii izucheniya vitaminov (zav. - prof. V.V. Yefremov)  
Instituta pitaniya AMN SSSR, Moskva.

MASLENKOVA, E.

Influence of long-term introduction of vitamins into the ration on white rats, general condition and longevity. V. V. YEFREMOV, A. N. TIKHOMIROVA, E. M. MASLENKOVA, E. A. KRAJKO, O. I. PENAR and L. G. Gvozdova. Institute of Nutrition, A.M.S., Moscow, U.S.S.R.

In our observations, made on 400 white rats for about four years, we studied the influence of a complex of thirteen vitamins added to the ration of the animals since their weaning from females to their death. The rats were divided into groups which received additionally (a) vitamin complex (VC), (b) vitamin complex without vitamin E, (c) only vitamin B<sub>1</sub>, (d) only vitamin B<sub>2</sub>. We studied the influence of these additions on (1) the weight of body and its length. Animals receiving VC increased them faster. (2) The consumption of feed per 100 g. of body-weight by the rats receiving VC was, on the contrary, less. (3) Excretion of eight vitamins with urine and their content in organs. In urine the rats of the VC group of all ages had these indices higher than control animals. (4) Working capacity; the VC rats gnawed several times as much wood a day as animals of other groups. (5) Fertility and weight of litter; the number of litters from VC females, number of young rats in them, and their weight were greater than those from control rats. (6) The content of cholesterol in blood at the age of 1 year increased in all groups, but most of all in control group of rats. (7) The VC animals had a much lower morbidity and death-rates than control rats; the VC rats had the greatest duration of life of individual animals, that of animals which received B<sub>1</sub> and B<sub>2</sub> vitamins only was less, and rats of control group had the least longevity.

6th International Congress on Nutrition, Edinburg  
9-15 August 1963

TIKHOMIROVA, A.N.; YEFREMOV, V.V.; MASLENKOVA, Ye.M.

Study of the effect of supplementary inclusion of vitamins  
in the diet on the general condition and longevity of white  
rats. Vop. pit. 22 no.5:46-50 S-0 '63. (MIRA 17:1)

1. Iz otdela vitaminologii (zav. - prof. V.V. Yefremov)  
Instituta pitaniya AMN SSSR, Moskva.

~~SECRET~~  
MASLENKOVA, Ye.M.

Characteristics of vitamin metabolism in the aging organism. Vest.  
AMN SSSR 19 no.5:76-82 '64. (MERA 18:3)

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MASLENIKOVAS, M.E.; DUBASOVAS, B.M., otv. red.; PRETERIS, I.Ch.,  
tekhn. red.

[Twenty years of Soviet Lithuania; statistical data]  
Tarybu Lietuvos dvidesimtmetis; statistiniu duomenu  
rinkinys. Vilnius, Valstybine statistikos leidykla,  
Lietuvos skyrius, 1960. 349 p. (MIRA 16:6)

1. Lithuanian S.S.R. Centr<sup>ine</sup>ne statistikos valdyba.  
(Lithuania--Statistics)

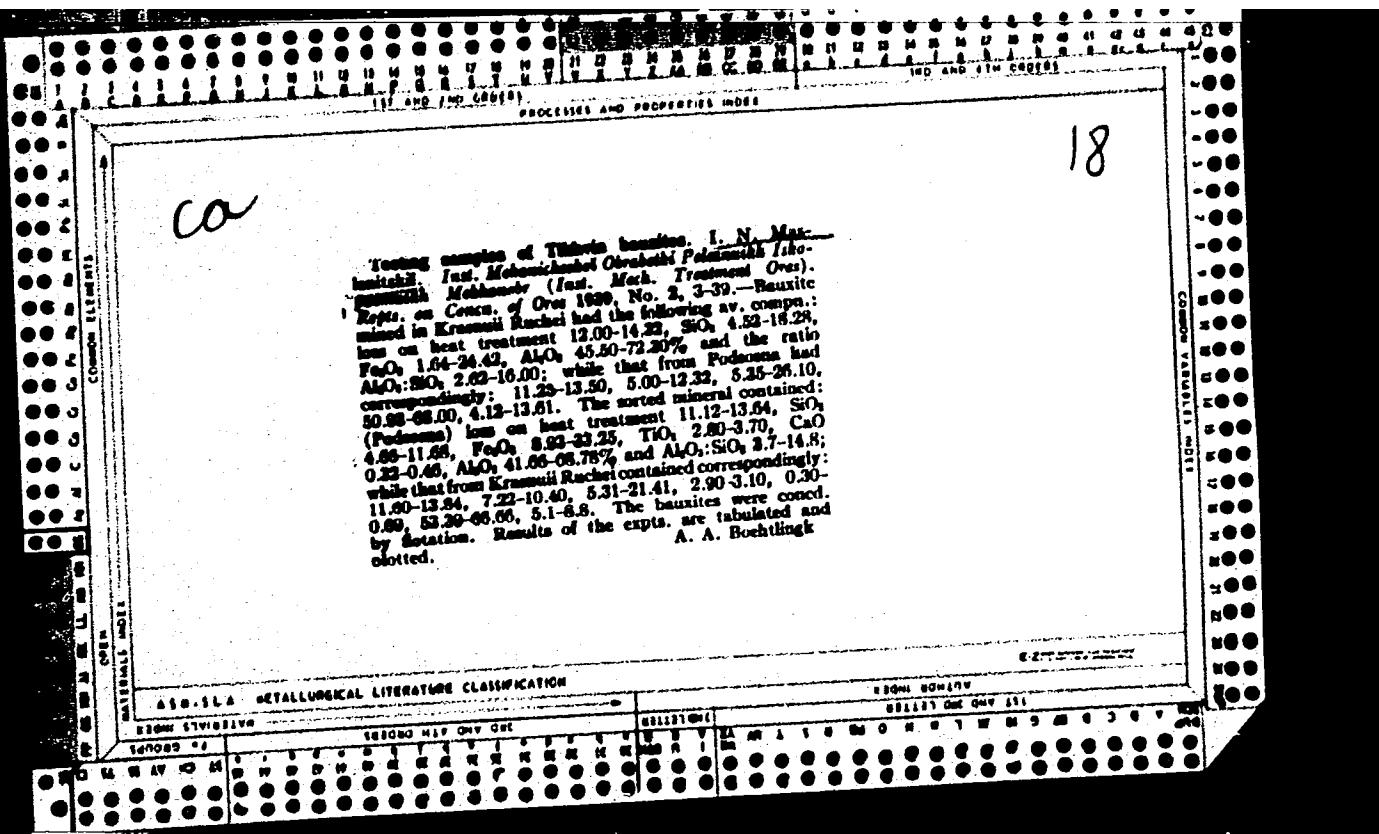
MASLENITSKAYA, Ye.I.

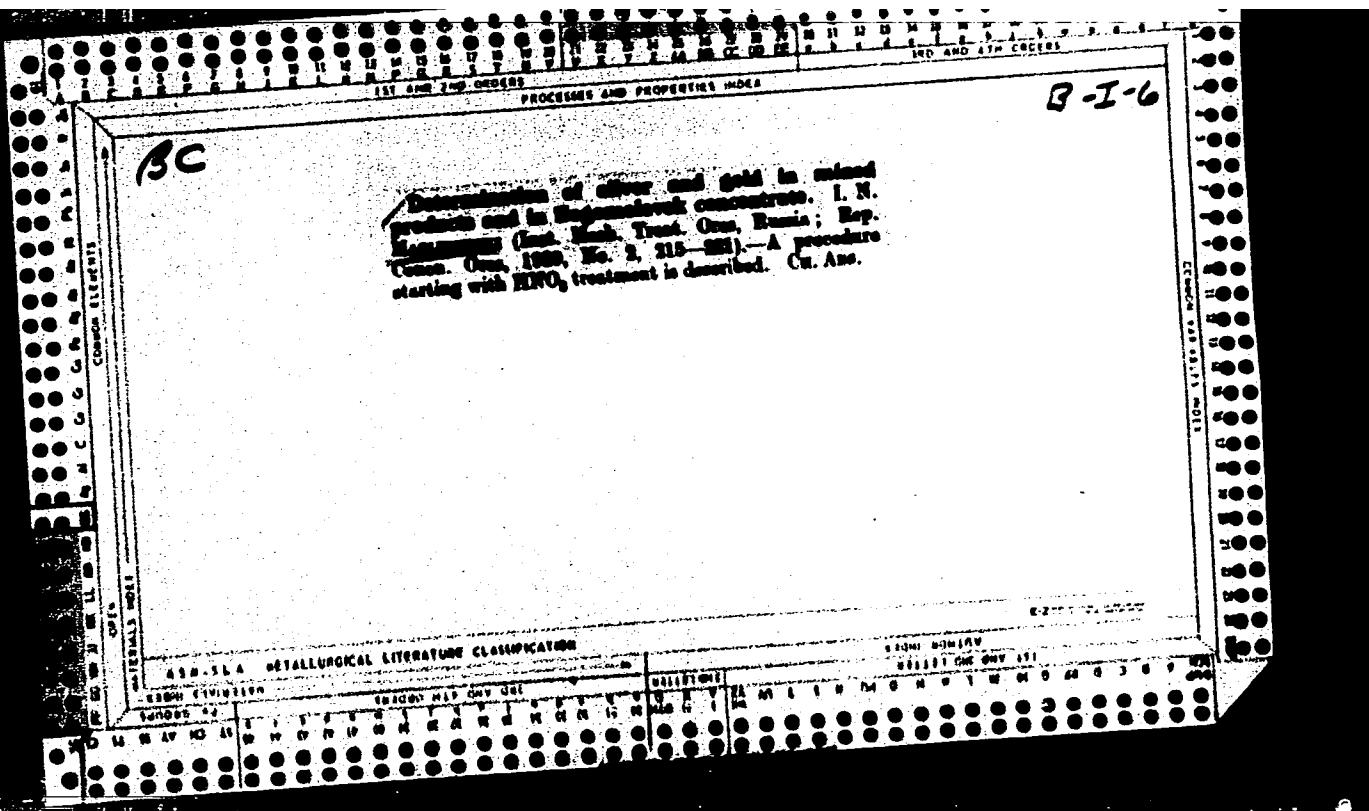
Selective flotation of fused copper and nickel sulfides. Obog. rud  
(MIRA 11:11)  
3 no.2:12-16 '58.  
(Flotation) (Copper ores) (Nickel ores)

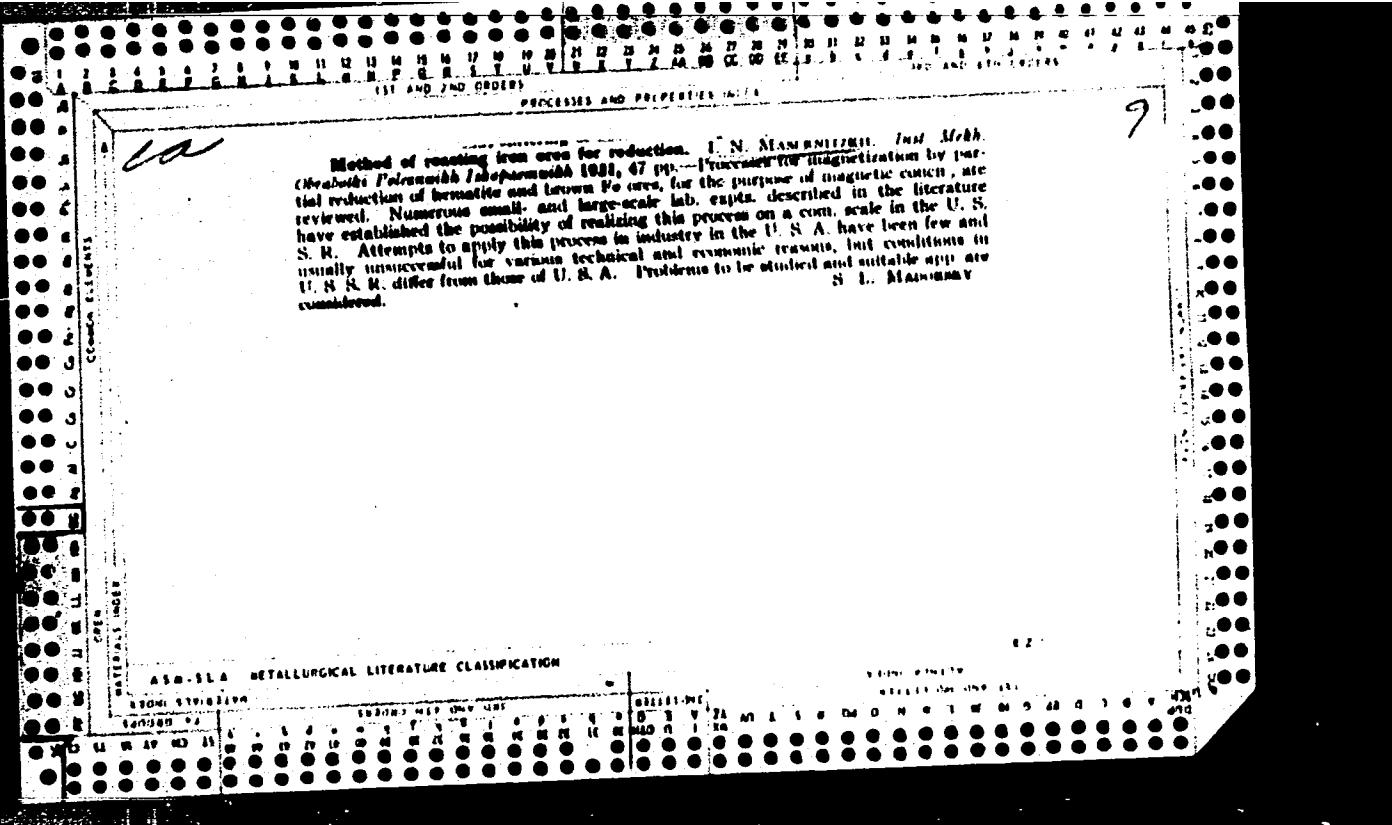
MASLENITSKAYA, Ye.I.

Separation by flotation of carbonyl residues. Obog.rud 5 no.2:24-  
27 '60. (MIRA 14:8)

1. Leningradskiy gornyy institut.  
(Flotation) (Carbonyl compounds)

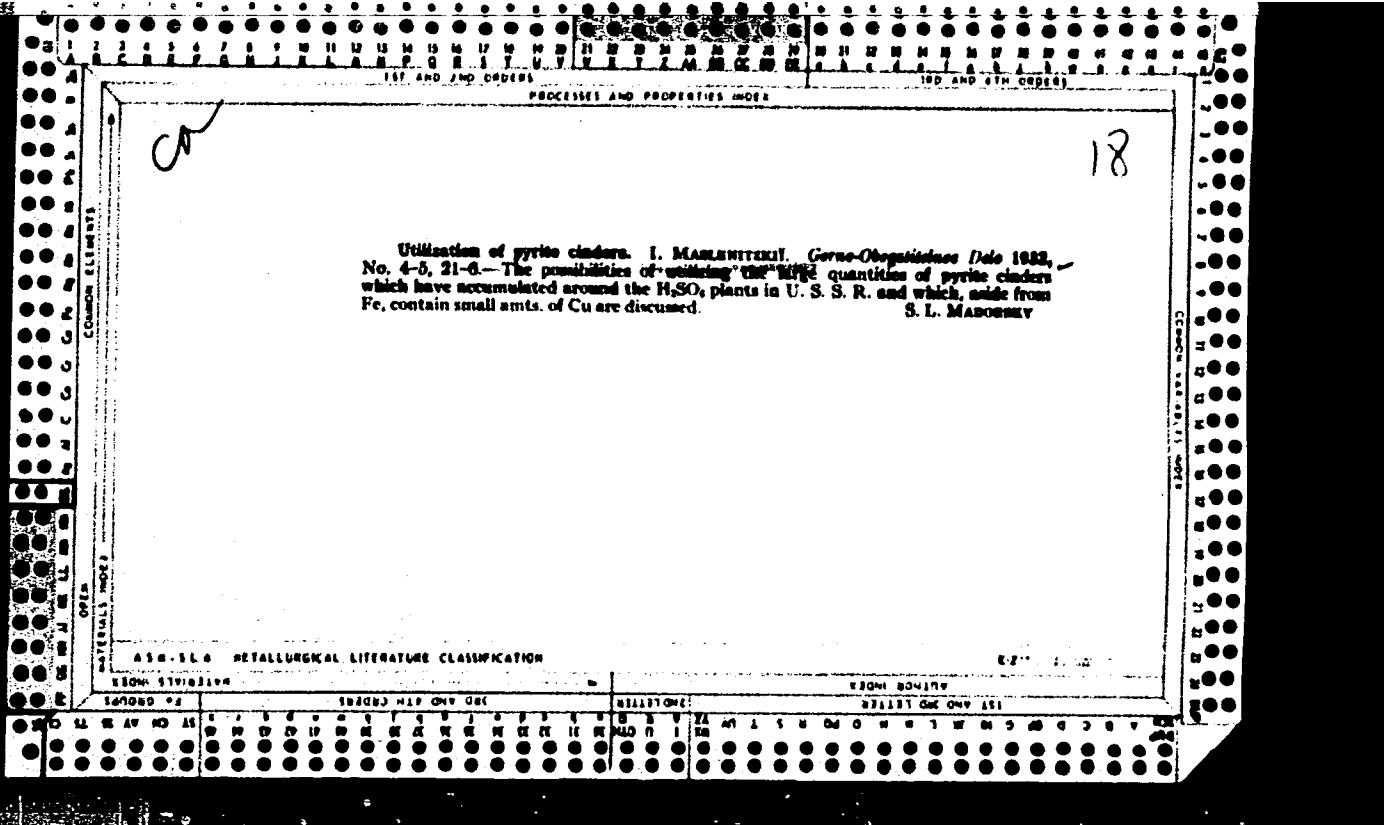


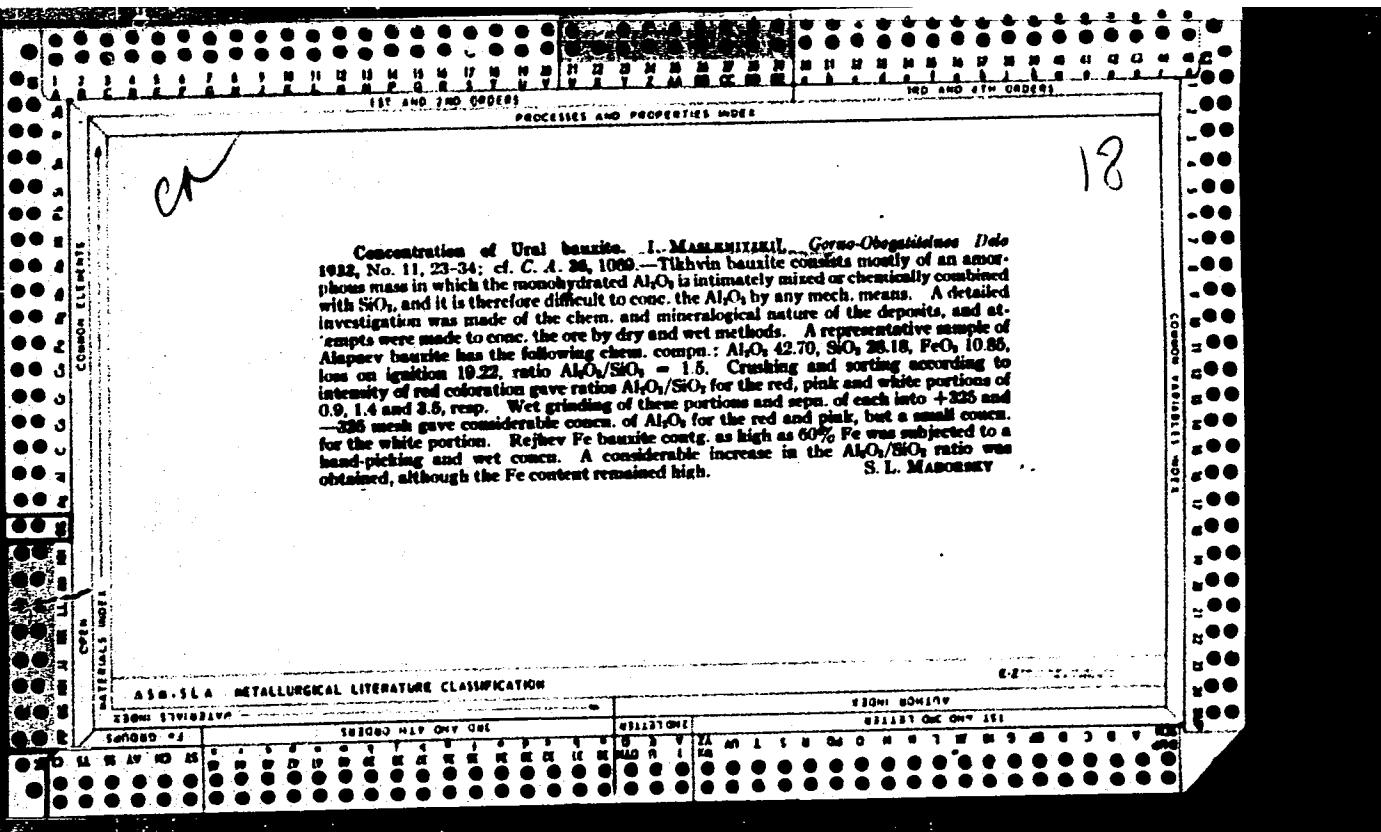


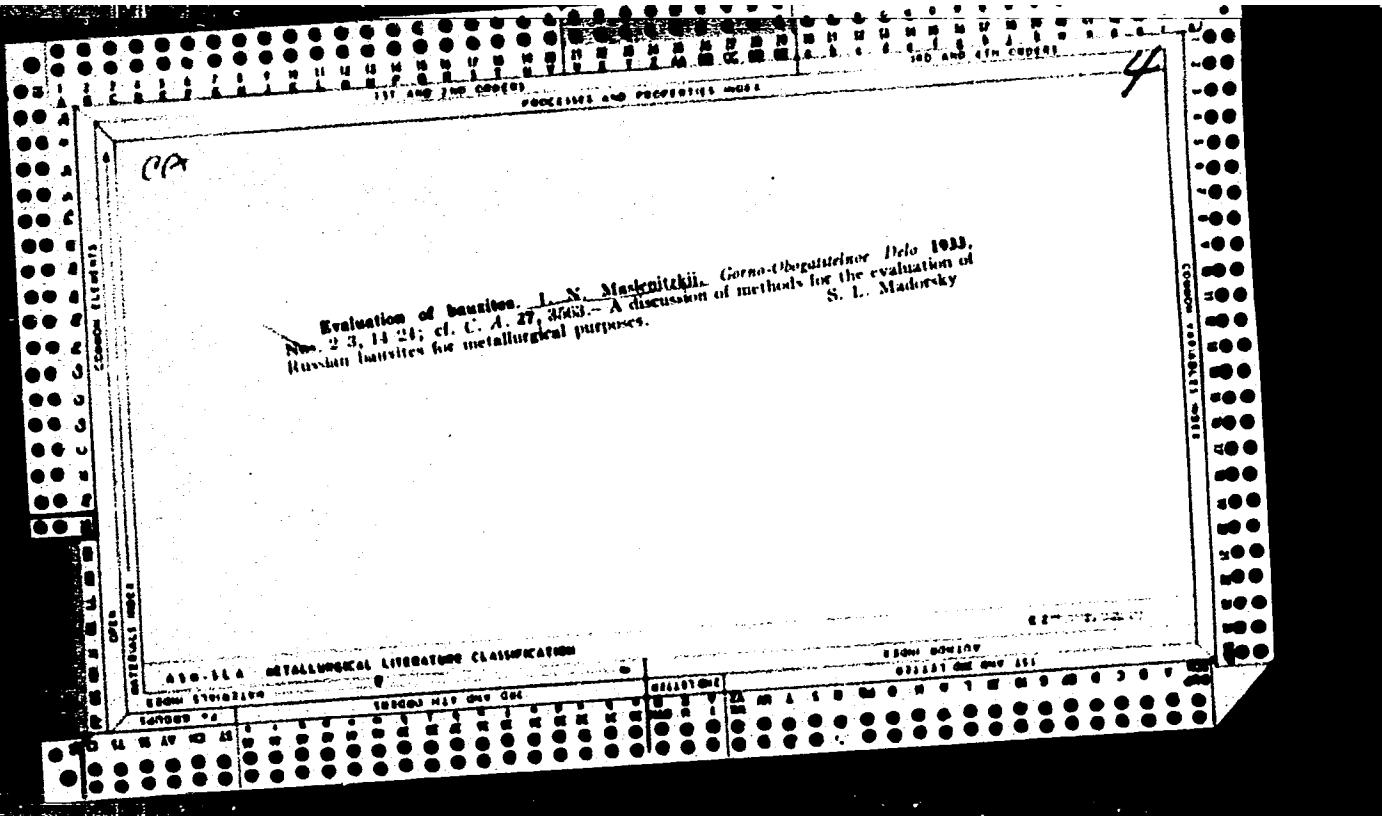


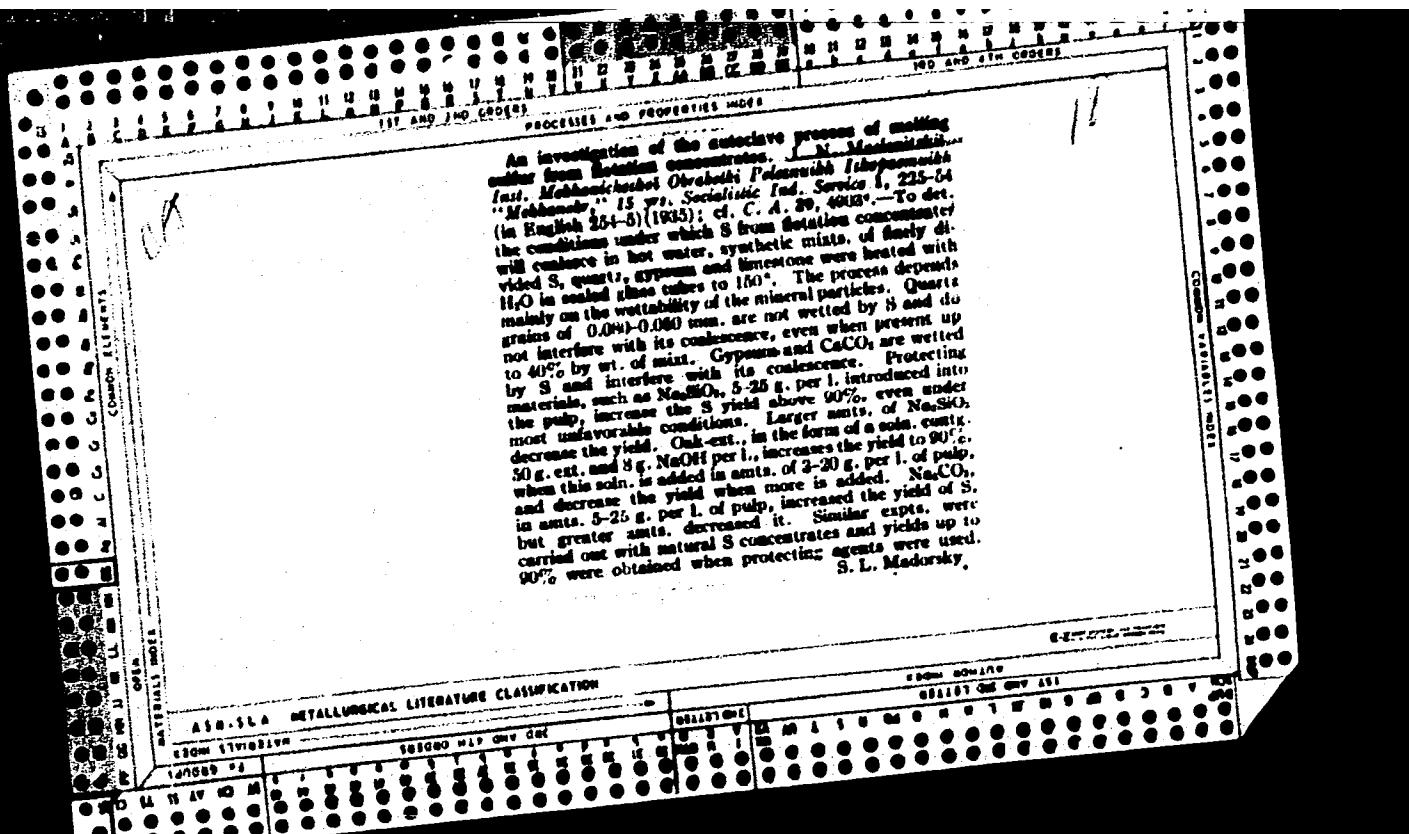
Ore and minerals as objects of ore dressing. I. N.  
Makarenko. Results and Achievements Field of Ore  
Dressing, U. S. S. R. 1932, 7-19.—A review of the  
problem of ore dressing as related to the Russian mineral  
industry. S. L. Madorsky

ASIA-SLA - METALLURGY LITERATURE CLASSIFICATION









BC  
MELTING OUT OF SULPHUR FROM FLOTATIONAL CONCENTRATES IN SUPERHEATED WATER UNDER PRESSURE.

I. Maslenitski (J. Chem. Ind. Russ., 1935, 12, 264--268).

--Concentrates containing 15% of foreign matter  
(I) are heated under  $H_2O$  (150°, 30 min.) then 90°,  
30 min.), when the fused S collects at the bottom,  
leaving the (I) in a layer floating on the S. Gypsum  
and  $CaCO_3$ , particularly when present in grains  $< 40 \mu$   
in diam., do not separate satisfactorily under these  
conditions; Na silicate, turpentine, or paraffin should  
then be added.-

R. T.

B-1-8

ALB-1A METALLURGICAL LITERATURE CLASSIFICATION

EDITION 1958

London 1958

TURBO MAP ONLY ONE

MAPS ONLY ONE

EDITION 1958

London 1958

MAPS ONLY ONE

